

Shuttling Through Stress: Mental Health Perspectives of Badminton Athletes

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Abstract

This study explores the problems faced by young student athletes. It was found that most of them face a lot of academic pressure. 15 people had been selected for the study, most of them fall in the age group of 15 - 18 year olds, and they participate regularly in sport activities. Some initiatives by the government to support the development of youth sports have been launched in India. This will ensure the development of talent at grass root levels. Along with this there is a need to create awareness programs for parents that educate them about the future career possibilities of youth athletes along with the benefits of sports.

Keywords: Probiotics, Anxiety, Stress, Mood, Badminton players, Exercise program, EEG, Emotion, Developmental disabilities, Skill, Talent identification, Agility

1. Introduction

1.1 Background of Badminton as a Competitive Sport

Invented in 1873, in Gloucestershire, England, the sport of badminton has been taking over the world. Informally, the sport may be played outside in the grass, grounds or yards, but formally and professionally, the sport must be played inside - in an indoor wooden court. Most assume that badminton does not require a lot of fitness ; that is a myth. Playing this sport at higher levels demands excellent fitness - high speed, stamina, endurance, strength, balance, coordination, and precision.

Badminton is a fast paced racket sport. Professionally, the most common forms of the game are "singles" (with one player per side) and "doubles" (with two players per side). It is a highly competitive sport - competitive sports refer to organised athletic activities in which individuals or teams compete against each other to achieve victory in a specific sport. The competitiveness of the sport is highlighted through tournaments worldwide.

The formation of the Badminton Association of England (BAE) in 1893 marked a significant step in standardising the rules and regulations of the sport. The first All England Open Badminton Championships, considered the world's first badminton tournament, were held in 1899. The International Badminton Federation, now called the BWF, or the Badminton World Federation was established on July 5 1934, holding championships in 1977.

The BWF classifies its tournaments into four grades to organise competitions based on prestige, ranking points, and prize money. Grade 1 tournaments represent the highest level of competition in the BWF tournament structure. These prestigious events attract top-ranking players from around the globe. The tournaments under this grade are the Olympic Games, BWF World Championships, and BWF World Tour Finals.

1.2 The Importance of Mental Health in Sport

Mental health includes our emotional, psychological, and social well-being. It also helps determine how we handle stress. Apart from all the physical requirements mentioned above (speed, stamina, strength, etc.), an athlete must be equally proficient in mental strength and endurance. Just as there is a physical side, there is also a mental side to every sport. A positive mental health and attitude is of the utmost importance during a competition. It will determine how well an athlete is prepared, focused, disciplined, motivated and controlled. It will also help manage difficult emotions faced by an athlete at the time of loss. A negative mental health may lead to feelings of depression, worthlessness and hopelessness, resulting in the athlete giving up and losing all motivation towards the sport she/he had loved once.

1.3 Overview of Stressors Faced by Badminton Athletes

There are many aspects of sports that improve mental health. An article published on ‘Sport England’ states that being physically active can improve mood, decrease the chance of depression and anxiety, and lead to a better and more balanced lifestyle. Apart from physical activity, in team sports, the connection to the team and being part of something bigger than oneself can improve self esteem, self confidence, and generate a positive mental attitude.

Despite all these benefits, there are several stressors faced by athletes as well. Talking about badminton athletes, these are :

Repeated losses: When athletes lose their games, they enter a never-ending vicious cycle, starting to overthink every single step they've taken regarding their sport. It in turn becomes emotionally taxing, putting their resilience and mental toughness to the test. One loss might lead to another, leading to a chain of losses and damaged sense of self worth.

Multiple responsibilities: For student-athletes, managing sports along with their academic curriculum can take a heavy toll on their mental state. In this pursuit of juggling responsibilities of sports and school, one will always fall behind. If by some miracle it doesn't, the student-athlete will feel overburdened and burnt-out consistently, and will be forced to sacrifice a lot of time out of their ‘downtime’ - relaxing, watching television, casual meetings with their family or friends, etc.

Lack of support : Creating an atmosphere where the players feel supported enhances both physical and mental performance. In many athletes, especially young and budding ones, this environment of support has not been created, especially by their parents. A career in sports is an unconventional way of life, and thus has many risks attached to it. This effectively pushes an athlete's parents against the idea of sports, leading to feelings of frustration and conflict in the athlete's mind.

Competition levels and performance-pressure: High competition levels, which can contribute to fear of failure, pressure to meet expectations, or worries about letting down other people in practices or games can contribute to mental health concerns for athletes.

Risk of injury or reinjury: Injuries can occur as a response to overtraining or improper training. Injuries can lead to feelings of sadness and hopelessness, especially if the injury sidelines the athlete for an extended period. Even after the injury heals, there is always the fear of re-injury. This fear subconsciously inhibits the athlete's performance. Sometimes, if the injury, or risk of reinjury, is too severe, it forces the athlete to quit the sport, leading to a loss of identity and sense of isolation and disconnection.

The Doubles Dilemma: Badminton has two facets - singles and doubles. Singles is an individual sport, but doubles can be construed as a team sport because its two people coordinating together. Downplay by one member would eventually result in the loss of both. This can also lead to one partner putting pressure

on the other to win, which results in higher distress and increases risk of negative performance.

1.4 The Link Between Mental Health and Athletic Performance

The relationship between mental health and athletic performance always flows both ways. Positive mental health leads to positive athletic performance, while negative mental health leads to negative athletic performance. Mental resilience enables athletes to perform at their best and push their limits without overtraining their muscles and body. A weak mental state might result in an athlete giving up quicker than other athletes with a stronger mental state.

Similarly, in an athlete, positive athletic performance leads to positive mental health, whereas negative athletic performance leads to negative mental health. Positive performance leads to a virtuous cycle where success builds confidence, enhancing mental well-being. Negative performance leads to a vicious cycle where failure leads to self-doubt, which in turn negatively impacts mental health.

Thus, sports performance and mental health are interconnected, with good sports performance improving mental health and poor mental health hindering physical performance. Athletes must maintain optimum mental health for optimal performance, and many incorporate mental health specialists, including sports psychologists, into their training and competition schedules to enhance mental toughness and performance results.

Literature Review

Cottrill, Neil (2007). This study evaluated the effectiveness of the Total Quality Recovery (TQR) scale for elite badminton players, comparing their Rate of Perceived Exertion (RPE) with actual recovery scores. Results revealed a significant imbalance between perceived effort and recovery, suggesting that current recovery practices were insufficient. Recommendations include increasing carbohydrate intake, using recovery modalities like massage and cryotherapy, and ensuring proper warm-up routines. The TQR scale proved useful for monitoring recovery, but players need to enhance their recovery strategies to prevent overtraining.

Kai Fehske (2020). Badminton, popular globally with a strong presence in Asia and Europe, involves high-intensity movements that can lead to both traumatic injuries (like ACL ruptures) and overuse pathologies (such as tendinopathies). Common treatments include isometric-eccentric exercises and modalities like shock wave therapy. ACL injury prevention programs are effective, though patellar tendinopathy programs remain debated. Players can pause the game to change the shuttle, rest, or strategize.

Nathalia Pachón-Blanco (2022). This research reviewed literature from January 2017 to January 2022 on the impact of athletes' mental health on performance, analysing 23 studies. It found that mental health significantly affects performance, with low levels of stress and anxiety potentially benefiting athletes. Additionally, sleep patterns and quality also play a crucial role in influencing both mental and physical states, thereby affecting performance.

Razali Mohamed Salleh (2021). This study examined the effects of daily probiotic consumption on anxiety, stress, mood, and fitness levels in university badminton players. After six weeks, the probiotic group showed significant reductions in anxiety and stress (16% and 20%, respectively) and improved aerobic capacity (5.9%). No significant changes were observed in the placebo group. Further research is needed to explore the mechanisms behind these effects.

David Cabello-Manrique (2022). This systematic review examined the health benefits of playing badm-

inton, analysing 27 studies. The findings indicate that regular badminton play enhances overall health, particularly improving cardiovascular and pulmonary functions and developing basic physical capacities. The review adhered to PRISMA 2020 guidelines and utilised comprehensive database searches to gather relevant literature.

Y.-J. Ryuh (2022). This study assessed the effects of badminton lessons on health and wellness in young adults with intellectual disabilities. Participants in the exercise group showed significant improvements in heart rate, walking distance, badminton skills, and positive emotional responses compared to the control group. These findings suggest that badminton can enhance physical and psychological well-being in adults with intellectual disabilities, making it a valuable activity for health and skill development.

Ihsan et. al., (2024). This systematic review analysed key factors affecting international-level badminton performance. It identified that physical conditions, technical skills, tactical strategies, and psychological attributes such as motivation and stress management significantly impact performance. The findings offer valuable insights for coaches and researchers to enhance training strategies and suggest areas for further study to better understand these factors' interactions.

Methodology

To assess the mental state of student athletes, a questionnaire has been made. This allows us to compare the mental health of athletes with non - athletes. A total of 12 questions have been formulated. Some of the questions are shown in figures below.

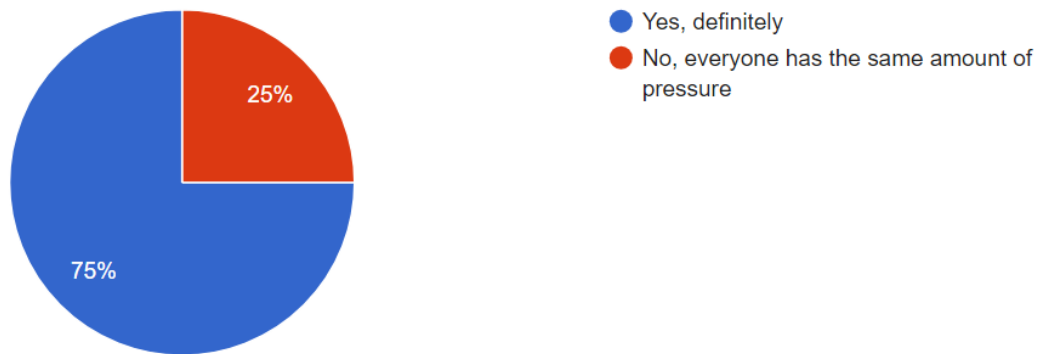


Figure 1. Question on whether student athletes face more pressure

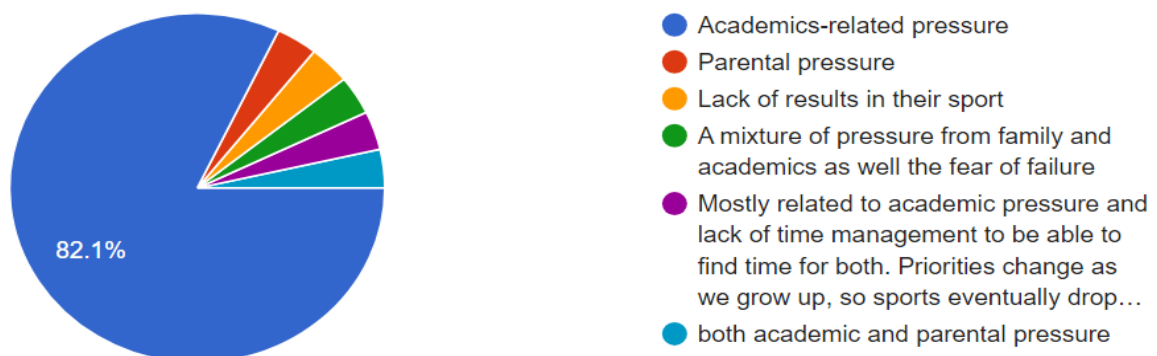


Figure 2. Question on why student athletes quit their sports



Figure 3. Question on the mental health of student athletes

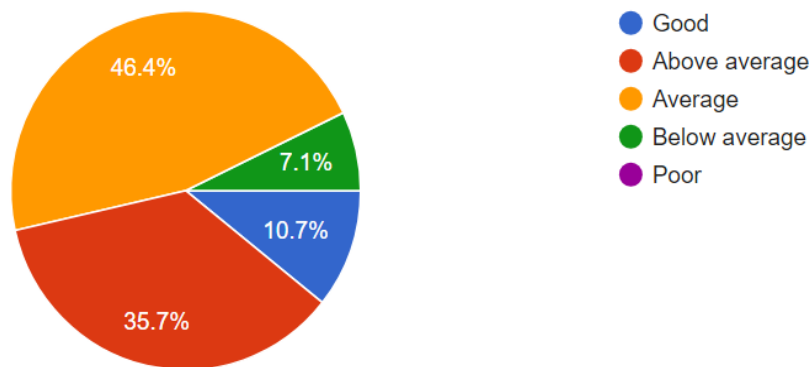


Figure 4. Question on mental health of non-athlete students

Results and Discussion

The survey shows that most of the correspondents knew a student athlete. The majority of the participants played a sport. Most of them confirmed that most of the athletes quit sports due to rising academic pressure. This is the most common reason why many young athletes have to leave the sport.

Some initiatives have been taken up by the government of India to grow the sports among youth such as Khelo India, National Sports Talent Contest (NSTC), National Youth Corps (NYC) etc. Such schemes have been designed to cultivate the passion for sports among the youth of the Nation.

Middle class youth are feeling more pressure due to their parents' high expectations in academics. This causes a lot of mental stress to the young athlete, and has to be dealt with intervention by a counsellor or psychologist, which young students are afraid to disclose to their parents.

Parents therefore need to be aware of such government initiatives and trust the process. Even though the government has made several schemes, the awareness among people is lacking and it will take some time before we get to see youth athletes enjoying sports without having to worry about academics.

Future implications

The purpose of this survey was to show the common problems faced by student athletes, although the number of participants was low, it reflected the problems faced by most of the student athletes all over the nation.

This survey should help the interested organisations in improving the awareness of government schemes for youth athletes. Mental health is also an issue faced by student athletes. This requires a Psychologist present at every training centre to help and guide the students in their lives, and proves that there is an increasing need for Sports psychology.

Conclusion

Young athletes are potential sports stars of our country, however they face many obstacles while growing up such as lack of quality training, lack of finances, excess of mental pressure. In view of those problems the government has launched a variety of schemes to facilitate the growth of top sport talent in the country. These programs offer over all development of the personality ensuring mental and physical strength all throughout their career.

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